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CYCLIST TRAINING.

Gen. No.
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(PROVISIONAL.)

1908.

GENERAL STAFF, WAR OFFICE.



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THIS Manual for the training of the cyclist battalions of the Territorial Force is issued by command of the Army Council for the guidance of all concerned.

THE WAR OFFICE.

23rd July, 1908.

CONTENTS.

	PAGE
DEFINITIONS	4
THE CYCLE AND THE EQUIPMENT OF THE CYCLIST	5
PART I.—PRELIMINARY TRAINING.—	
Chap. I.—Principles of Training	7
„ II.—Cyclist Drill	13
Squad Drill	14
Company Drill	20
Battalion Drill	25
PART II.—FIELD TRAINING.—	
Chap. III.—The Role of the Cyclist in War	27
„ IV.—Movements by Road and Rail	33
„ V.—Protection	40
„ VI.—Reconnaissance	47
„ VII.—Protection of a Coast Line	56
„ VIII.—Cyclists in Co-operation with the other Arms on the Battlefield	64
Machine Guns	70
PART III.—CEREMONIAL	75
INDEX	79

DEFINITIONS.

Battalion. A *battalion* consists of headquarters, 8 companies, and a machine gun section.

Company. A *company* is the tactical unit, and is divided into half companies. Each half company is sub-divided into two sections, and each section into two squads, each squad being under a non-commissioned officer, or selected private as squad leader.

Cycle-length. A term of measurement (six feet).

Cycle-distance. A *cycle-distance* is two cycle-lengths (twelve feet), and is measured from the rear point of one cycle to the front point of the next in rear.

Cycle-interval. A *cycle-interval* is four feet measured from the top stay of one cycle to the top stay of that on the right or left.

Quarter Column. Companies on parallel and successive alignments, at a distance from one another of four cycle-lengths.

For definitions of other terms see "Infantry Training."

CYCLIST TRAINING, 1908.

THE CYCLE AND THE EQUIPMENT OF THE CYCLIST.

1. The cycle should be of a heavy roadster type. In view of the fact that the cyclist will have to carry heavy weights on service and to cycle in all weathers and over bad roads, a low gear is recommended. Uniformity of type is very desirable, the most suitable gears are from 68 to 75. The cycle should be fitted with a bell; carrier with straps; two brakes, pump; toolbag containing spanners, oilcan with lubricating oil, repair outfit, and cleaning cloth; lamp and lamp brackets.

2. It is desirable that those parts which are usually plated should be painted or browned on mobilization. Each cycle in a battalion should be allotted a distinguishing number, which should be marked on both sides of a tin plate attached to the frame, in figures not less than one inch in size. It is an advantage if the tin plates are of a distinctive colour for each company.

3. The commanding officer's orderly, usually a bugler, should carry a blue flag of the size of a small signalling flag attached to the handle bars by clips. Officers commanding companies should carry similar white flags, and section commanders red flags.

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4. The following methods of carrying equipment, &c., are recommended. Commanding officers are at liberty to adopt other methods provided that the system in the battalion is uniform.

- (1) Rifle attached by clip to rear of frame below the saddle with fore end resting on the cape folded on the handle bar (see 2).

This method prevents the rifle being fouled with mud in bad weather, but the rifle may also be attached by clips to the frame with the butt resting against the bottom of the diagonal stay of the frame, and the fore end projecting above the front wheel.

- (2) Waterproof cape, rolled and attached to handle bars.
- (3) Blanket rolled and attached to carrier.
- (4) Valise or waterproof kit bag on the handle bar.
- (5) Reserve ammunition in pouch above the blanket.

5. It is recommended that ammunition be carried in pouches and not in bandoliers, which if filled with ammunition prevent freedom of breathing when cycling up hill or on heavy roads.

6. Cyclist officers do not wear swords, nor the rank and file bayonets. Officers carry revolvers.

PART I.

PRELIMINARY TRAINING.

CHAPTER I.—PRINCIPLES OF TRAINING.

Sec. 1.—GENERAL PRINCIPLES AND INSTRUCTIONS.

1. "Cyclist Training" is intended for the use of the cyclist battalions of the Territorial Force. These battalions are destined for home defence and are composed of men who can give a limited amount of time to peace training. Cyclists of regular units or of other units* of the Territorial Force will conform to the general principles here laid down so far as they are applicable.

2. The object of this manual is to explain to the cyclist the advantages and limitations of the cycle in war and to show him how to make the most of the former and to overcome the latter. But to be able to manœuvre and fight and to perform such duties as may fall to his lot in bivouac, camp, or quarters the cyclist must also be acquainted with the following portions of "Infantry Training":—

* The cyclist sections of infantry battalions are intended primarily for inter-communication and scouting and not for tactical employment as independent cyclist units.

Part I, *Squad Drill*, Secs. 3, 4, 5, 6, 7, 8, 9, 10, 11 (quick and double march only) 13 (quick march only), 14, 15, 18, 20, 21, 23, 24, 25, 26, 27, 30, 31, 32, 34, 35, 36, 40, 41, 44. *Skirmishing*, Secs. 45-58; Part II, 76-84; Part IV, *General Principles of Attack and Defence*, Secs. 124-127.

The above is to be regarded as a minimum; if time is available the whole of Part IV should be studied and practised.

The cyclist must be proficient in musketry and must, therefore, be acquainted with Chapter II, "Appendix to Training Manuals." The course of musketry and the regulations governing it will be found in the "Musketry Regulations."

The "Manual of Physical Training" contains instructions as to physical training.

"Combined Training" contains the principles which govern the employment of the various arms in combination; a knowledge of it is, therefore, as indispensable to cyclists as to the other arms. Instruction in map reading is contained in the "Manual of Map Reading and Field Sketching" and in field engineering in the "Manual of Military Engineering."

The peace establishment of a cyclist battalion is laid down in "Special Army Order of March 18, 1908," and its war establishment in "War Establishments Territorial Force."*

The normal position of the cyclist's rifle, except when in action or prepared for action, is on the cycle. Drill with arms is, therefore, not required of the cyclist except "Appendix to Training Manuals," Chapter I, Sec. 12.

Sec. 2.—INDIVIDUAL TRAINING.

(1) *The Recruit.*

The foundation of all training is careful instruction of the individual. The recruit must be made to understand from the first that the duties of a cyclist demand self-reliance and

* These establishments will shortly be published.

quickness of decision ; that his strength lies in his mobility, which is dependent upon his keeping himself fit and his cycle in good order ; and that his skill can only be turned to advantage when it is regulated by discipline, without which he cannot co-operate effectively with his comrades or with the other arms. The territorial soldier can only acquire those qualities of discipline, which by long training become second nature in the regular soldier, by the application of superior intelligence and strength of will and by a clear understanding of the importance of unquestioning obedience and of the determination to carry out orders at all costs.

The course of instruction of the recruit will depend upon the time available, but he should not join the ranks of his company until he is proficient in squad drill dismounted, with and without the cycle ; in mounting and dismounting ; in attaching and returning the rifle ; in musketry exercises (" Appendix to Training Manuals," Chapter II, to Sec. 18 and Secs. 20 and 21) ; in skirmishing (" Infantry Training," Sec. 45 to 57) ; in following a leader mounted and maintaining the regulation distance at all paces ; in the care of the cycle (the recruit should be able to mend a puncture, adjust brakes, true a wheel, and adjust a rifle clip).

The above subjects will be distributed over the course, which will be systematic and progressive ; instruction in map reading, practical and theoretical, in semaphore signalling, and in physical training (if required), may be combined with the course with advantage.

•

(2) *The Trained Cyclist.*

The individual training of the trained cyclist should be begun as soon as possible after the battalion has returned from camp, and should be continued throughout the winter, with the object of making him a more efficient member of his company. The course should comprise instruction in musketry and judging distance, map reading, reconnaissance and scouting, writing reports and messages, semaphore signalling, and

physical training as required. It should be impressed upon the trained cyclist, that he can do much to make himself efficient in his own time, by acquainting himself with the area allotted to his battalion for home defence, and by writing reports both on the ground and from memory on the important tactical features of that area. He should be encouraged to study "Combined Training," and those portions of the "Manual of Map Reading and Field Sketching" which deal with map reading.

(3) *The Non-Commissioned Officer and Section Commander.*

The course of individual training for the non-commissioned officer should be similar to that for the trained cyclist but of a more advanced nature. The theoretical instruction should include those portions of the "Manual of Military Engineering" which deal with Defence of Posts, camping arrangements and hasty demolitions. War games and small schemes involving the conduct of patrols on a map will afford valuable means of instruction.

(4) *The Officer.*

The recruit officer will follow the course of training laid down for the recruit. Company officers should take advantage of the period of individual training to make themselves acquainted with the occupations of their men, so that the fullest use may be made of any of their qualifications which have military value. They should be encouraged to use the winter months to perfect their theoretical knowledge, and for that purpose war games, regimental tours, and tactical exercises without troops, especially within the area allotted to the battalion, will be found advantageous.

Sec. 3.—COMPANY TRAINING.

1. The company is the tactical and training unit. It is not possible to fix a course of company training, for much will depend upon local circumstances, the conditions of employment of the men, and the tact and energy of the company commander. The object to be attained is that the company should be fit to take its place in the battalion at the annual camp. Such drills as may be necessary should be completed as early in the year as possible. All that is required is that all ranks should be able to execute movements in an orderly manner by signal or by word of command. No time must be wasted in endeavouring to attain excessive smartness and accuracy of movement.

2. The course of training should include—

Musketry. The cyclist is of little value unless he is a good shot, every encouragement should be given to musketry, and instruction in musketry and judging distance should be combined with every tactical exercise.

Marching by day and night, particularly the control of a column of cyclists on a road.

Marches in small bodies on different roads, practice in maintaining connection. Marches may be combined with range practices with advantage.

Patrolling and scouting.

Advanced, rear, and flank guards, outposts, and skirmishing.

• Attack and defence, particularly forming up rapidly for attack from column of route, and regaining cycles and resuming column of route.

Defence of posts

Ambushes.

Bivouacs and camp expedients.

Tactical exercises should be conducted under a simple idea which should be explained to all ranks before starting. Whenever possible these exercises should be carried out in the area

allotted to the battalion for home defence and should be so arranged as to gradually make the company thoroughly acquainted with the whole of that area. This will give reality to the work and will act as a stimulus to all ranks. By this means and by encouraging a healthy rivalry between half companies, sections, and squads, company commanders will attract recruits and obtain that regular attendance at drills and exercises without which efficiency is impossible.

Sec. 4.—BATTALION TRAINING.

Battalion training will usually be carried out at the annual camp, which should form the culminating point of the year's instruction, and therefore should be as late in the year as possible. Advantage should be taken of the march to and from the camping ground for tactical exercises, practising communication between columns, laying and discovering ambushes, etc. The chief object of battalion training should be to accustom the companies to work together and to train officers in the difficult duty of controlling large bodies of cyclists on a road.

The annual camp should be held in the area allotted to the battalion for home defence. The battalion should practice mobilization once a year, either at camp or at some other convenient time, and should execute a mobilization march, the men carrying food for 24 hours and the battalion being billeted if possible for one night.

CHAPTER II.—CYCLIST DRILL.

Sec. 5.—GENERAL RULES.

1. Cyclist drill is for cyclists mounted, or dismounted and leading the cycle.

The cycle is the means of conveying the cyclist rapidly from one point to another. In column of route the cyclist marches in file or in single file. The only drill required of the cyclist, except for ceremonial parades, when he has sufficient knowledge of "Infantry Training," is that which enables him to adopt those formations in an orderly manner. Any elaboration of mounted drill is forbidden.

2. Except when forming column of route, cyclists drill dismounted and in single rank. The cautions and commands are given for dismounted cyclists and as a rule with regard to one flank only, but the same principle applies to movements to the other flank which should be practised.

3. Movements in file are to be at cycle distance, and in single file at half cycle distance. In file cycle-interval will be preserved.

4. Signals will be employed, whenever possible, the men's attention being called by whistle-sound. Men must be taught to conform to the movements of those in front or behind them, when they do not hear the command or see the signal.

5. Cyclists should be taught to ride one cycle and lead another.

Sec. 6.—SQUAD DRILL.

(1) *Formation of a squad.*

A few dismounted cyclists will be placed in line at cycle-interval and will be numbered from right to left.

(2) *Position of the cyclist.*

The position of the cyclist at *Attention* is the same as that of the infantry soldier, except that he will grasp the left steering handle with the left hand, and place the right hand on the point of the saddle, elbow to the rear.

Unless otherwise ordered, the rifle will be attached to the cycle.

(3) *Standing at ease, and standing easy.*

<i>Stand at—</i>	{	Keeping both legs straight, carry the left foot about one foot to the left.
<i>Ease.</i>		
<i>Stand Easy.</i>	{	When a cyclist stands easy, he may hold his cycle in any convenient position, or place it on the ground if he desires, but he will not quit his ground.

(4) *A Squad in line dressing.*

The cyclist will be taught to take up his own dressing, on all occasions except ceremonial, by the man on the flank of direction, moving his cycle backwards or forwards in the most convenient

(5) *Saluting.*

A cyclist standing with his cycle, with the rifle attached, will salute with the right hand, as laid down in "Infantry Training,"

returning the hand to the point of the saddle on the completion of the salute.

A cyclist, whether mounted or leading his cycle, will salute by coming to *Attention* (if at ease) and turning his head towards the officer he salutes.

A party of cyclists on the march will salute on the command *Eyes—Right* (or *Left*), followed by *Eyes—Front*, from the officer or non-commissioned officer in command.

The rules as to the distances at which salutes commence and cease are the same as laid down in "Infantry Training."

(6) *Turnings.*

<i>Single file— Right (or Left).</i>	{	If it is desired to move in single file to a flank, on the word <i>Right</i> (or <i>Left</i>) each man in succession from the right or left will grasp the centre of the top stay of the cycle and at the same time raise the cycle off the ground, place it in the named direction and step off.
--	---	--

When a squad is moved to a flank in file or in single file, the leading man will invariably become No. 1 and the squad will be renumbered if necessary.

<i>About— Turn.</i>	{	1. <i>In line. From the Halt.</i>—On the word <i>Turn</i>, the odd numbers will take three paces forward, after which the whole will turn about, taking the time from right hand man of the odd numbers; the odd numbers will regain their places. 2. <i>In line. On the March.</i>—On the word <i>Turn</i>, the odd numbers will move forward three paces, the even numbers marking time three paces. The whole will then turn about, taking the time from right hand man of the odd numbers; after which, the even numbers will mark time, while the odd numbers regain their places. The whole will then move forward.
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(7) *Grounding and taking up cycles.*

- Ground—Cycles.* { On the word *Cycles*, take a pace of 30 inches to the left, at the same time place the cycle carefully on the ground, and come to *Attention*.
- Take Up—Cycles.* { On the word *Cycles*, raise the cycle, at the same time taking a pace of 30 inches to the right, and come to *Attention*.

(8) *Stacking and unstacking cycles.*

- Stack—Cycles.* { On the word *Stack*, odd numbers will move round in rear of and to the right side of their cycles. On the word *Cycles* each file will incline their cycles towards each other. The steering wheels will be turned outwards, the handle bars interlocked and the men will stand to attention.
- Unstack—Cycles.* { Each man will grasp his cycle and unlock the handle bar. Odd numbers will move round in rear of, and to the left side of their cycles.

(9) *Mounting and dismounting.*

- Mount.* { 1. *Mounting.*—On the command *Mount*, grasp the right steering handle with the right hand and place the left foot on the step. Move the cycle forward by giving one or more hops on the right foot (as may be necessary), and then mount.
- Dis—mount.* { 2. *Dismounting.*—On the command *Dismount*, carry the left foot back and place it on the step, raise the body out of the saddle, stand on the step, and dismount on the left side of the cycle.

Should it be desired to halt the squad on dismounting, the command *Halt* will be given instead of *Dismount*.

Men who are accustomed to mount or dismount by the pedal may continue to do so.

Cyclists should also be practised in mounting in succession on reaching some given point, distance being preserved as far as possible. When in file or in single file no man is to mount until the man in front is mounted. If distance has been lost cyclists will invariably close up before dismounting. Too much stress cannot be laid upon the practice of mounting and dismounting. Upon the skill and precision with which these movements are carried out depends the rapidity and accuracy with which column of route can be formed or abandoned.

(10) *Detaching and returning arms.*

- | | |
|------------------|---|
| Detach—
Arms. | { On the word <i>Arms</i> , detach the rifle with the right hand, and rest it on the saddle sling to the right. |
| Return—
Arms. | { On the word <i>Arms</i> , place the rifle in the attachment, and come to <i>Attention</i> . |

(11) *When moving in Single File, forming File; and when moving in File, forming Single File.*

1. *File from Single File.*

- | | |
|----------------|---|
| Form—
File. | { The even numbers will increase their pace, and move to their places at cycle interval on left of the odd numbers; the whole will then close to cycle distance, and take up the ordinary pace when cycle distance is gained. |
|----------------|---|

2. *Single File from File.*

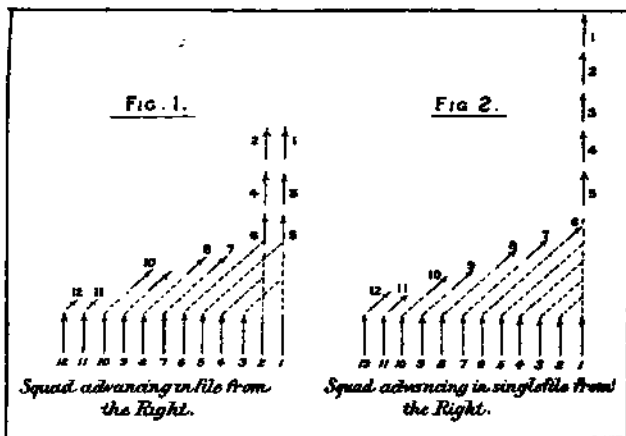
- | | |
|--------------------------|---|
| Form—
Single
File. | { The leading odd number will move on as before, the remainder will decrease the pace, the even numbers falling into their places in rear of the odd numbers as soon as there is room for them, the whole taking up the ordinary pace when the movement is completed. |
|--------------------------|---|

(12) *Moving to a Flank in File.*

*Files—Right
(or Left.)
Quick—
March.*

Odd numbers will turn to the named flank, even numbers wheeling their cycles to cycle interval on the left of the odd numbers.

PLATE I.

(13) *Advancing from a Flank, in File, or Single File (Plate I).*

*Advance in
File from the
Right.*

On the word *Right* (or *Left*), the two men on the right (or left) will move off; the remainder will in succession make a half-turn in the required

Quick— direction, and move on so as to gain cycle
March. distance in file by the shortest line.

In advancing in single file the words of command will be
Advance in Single File from the Right. Quick—March.

(14) *In File, or Single File, turning about.*

<i>About— Turn.</i>	{	1. <i>From File.</i>
		On the word <i>Turn</i> , whichever flank the
		squad is moving to, the odd numbers will turn
		about, the even numbers wheeling their cycles
		round them and coming up on their left. The odd
		numbers must regulate the speed of turning so
		as to make room for the even numbers to wheel
		their cycles behind them.
		2. <i>From Single File.</i>
		The squad will turn about.

(15) *Changing direction, in file or single file.*

A squad will change direction as in "Infantry Training,"
 Sec. 31.

(16) *When marching in File or Single File, forming up into
 squad.*

As in "Infantry Training," Sec. 32. If in file, single file will
 first be formed.

(17) *Dismissing.*

On the command *Dismiss*, the men will, after a pause, break
 off and lead their cycles quietly away. They will not mount
 till clear of the parade ground.

(18) *Signals.*

1. *Increase pace.*—Right arm extended horizontally to the
 right and then bent and straightened several times.

2. *Decrease pace.*—Arm extended horizontally to the right.
 3. *Mount.*—Right arm extended with elbow bent, the right hand being raised from the height of the waist to the height of the head.
 4. *Dismount.*—Right arm extended with elbow bent, the right hand being lowered from the height of the head to the height of the waist.
 5. *Form File or Single File.*—Right arm raised to full extent above the head and lowered three times to the right side.
- Other signals as in Sec. 49, "Infantry Training."

Sec. 7.—COMPANY DRILL.

(1) *General Rules.*

The establishment referred to in the following sections, and in the plates is the war establishment. Where the peace establishment differs from the war establishment the positions of the commanders, etc., will conform to what is here laid down as far as possible.

Organization.—A company is normally divided into half-companies, each half company into two sections, and each section into two squads. Should there be less than six men in addition to the commander in a section, it will not be subdivided. The sections are numbered one to four, the squads one to eight. The members of a section will always fall in in the same place, and the men composing a squad will work together whenever possible.

The Captain.—The commander is allowed considerable independence as regards his position; he will, when the company is acting alone, place himself where he can best exercise supervision. In company column he will be six cycle-lengths in front of the centre of the leading section. In file or single file he will be where he can best see and pass on signals, usually at the head of his company. In line he will be three cycle-lengths in front of the centre of his company.

Half-company Commanders.—In company column half-company commanders will be one cycle-length from the centre of their half companies on the directing flank. In line they will be two cycle-lengths in the rear of the centre of their half companies. In file or single file they will be so placed that they can see the commander's signals or those of the half-company commanders in front of them. Normally the subaltern will command the right half company and the colour-sergeant the left half company.

Section Commanders.—In company column section commanders will be two cycle-lengths in front of the centre of their sections. In line they will be one cycle-length in rear of the centre of their sections. In file or single file they will be at cycle distance in front of the leading file, or single file of the section.

One signaller will be posted to each of the first three sections and a repairer to the 4th section. In company column or in line the signaller or repairer will be at one cycle length in rear of the centre of the left squad. In file or single file, he will be in rear of the section. Supernumerary non-commissioned officers, drivers and batmen, unless otherwise employed, will be in the ranks. In line the men in the ranks will be at cycle interval.

(2) *Formation of a company.*

The company will fall in as shown in Plate II.

(3) *Inspecting and proving a company.*

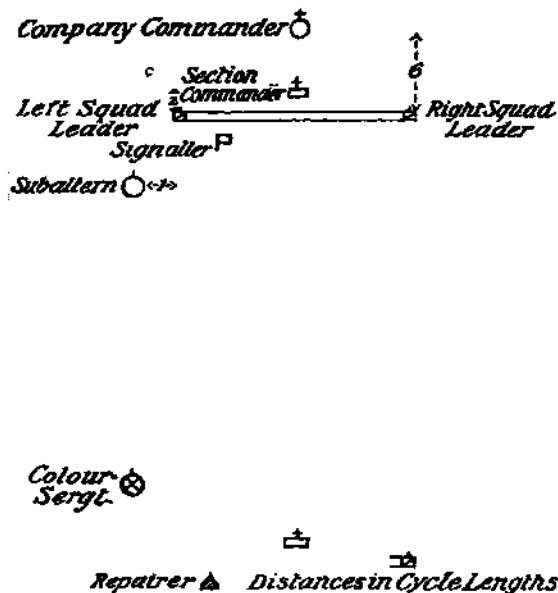
A company will be inspected and proved as follows:—

The officer commanding will inspect the cycles. Having completed the inspection he will give the commands: *By Squads—Number. Detach—Arms. Ground—Cycles. Three Paces Forward—March.*

The officer will then inspect the company as laid down in "Infantry Training," after which he will give the commands: *About—Turn. To your Cycles—March. About—Turn. Take up—Cycles. Return—Arms. Files—Right. Files—Left. Stand at—Ease.*

PLATE II.

COMPANY IN COMPANY COLUMN BY THE LEFT



The section commander is responsible that the cycles of his section are in good order. Inspection will be carried out as follows: The wheels of each cycle will be raised a few inches from the ground, and turned so that the condition of the tyres and spokes may be noted, also whether the wheels are revolving truly and easily. The brakes will next be tested, and the saddle, steering gear, lamp, and pump inspected to see that they are in proper working order. The section commander will also ascertain that the rifle is secure in the attachment, and that the tool bag contains wrench, screwdriver, can filled with lubricating oil, repair outfit, cleaning cloth, and spanners to fit every nut.

When the inspection of the sections is completed, the company commander will give the command: *Tell off the Company*, on which section commanders will number off from the leading section.

(4) *Drill Movements.*

A company may be drilled in any of the movements detailed in squad drill, but, as a rule, its exercises will be confined to the practice of movements in column of files on the road, to quitting and regaining cycles, and to tactical exercises. When it is desired to form company column from file, single file will first be formed, when on the command ON THE RIGHT (OR LEFT) FORM SECTIONS the sections will act as in SQUAD DRILL (15). A company moving in file when required to form line to the front, will form single file, then act as in "Infantry Training," Sec. 64 (i).
*A company may form line to a flank from single file on the command AT THE HALT FACING RIGHT (OR LEFT) FORM COMPANY when the leading cyclist will halt and turn to his right or left, the remainder acting similarly when at cycle interval from the cyclist in front. Half-company and section commanders and supernumeraries will move to their positions in line by the shortest way.

Sec. 8.—BATTALION DRILL.*(1) General Rules.*

The battalion will usually fall in in quarter column, but may do so in column if desired.

The positions of officers and supernumeraries are shown in Plate III.

The commanding officer, who will be accompanied by the adjutant and acting serjeant-major, when the latter is not in charge of the ammunition motor vehicles, will place himself where he can best exercise supervision; when the battalion is in file or single file, the major will be in rear of the column.

(2) Inspection and telling off.

The battalion will be inspected and told off as in "Infantry Training," Sec. 93.

(3) Battalion Drill.

Battalion drill will be confined to moving off in column of route from the place of assembly. This may be done to a flank from column or quarter column by the command IN SUCCESSION FROM NO. FILES (OR SINGLE FILE) RIGHT (OR LEFT): when the commander of the named company will act as in Sec. 6 (12) or (6), the remaining companies conforming and moving into their places by the shortest route. Column of route may be formed to the front from column by the command ADVANCE IN FILE (OR SINGLE FILE) FROM THE RIGHT (OR LEFT) OF COMPANIES: QUICK—MARCH: or from quarter column by the command IN SUCCESSION FROM NO. 1, ADVANCE IN FILE (OR SINGLE FILE) FROM THE RIGHT (OR LEFT) OF COMPANIES. The commander of No. 1 will then act as in Sec. 6 (13), the remaining companies conforming in succession.

(4) *Forming quarter column from column of route.*

If in file, single file will first be formed, when quarter column may be formed on the command AT THE HALT FACING RIGHT (or LEFT) QUARTER COLUMN ON THE LEADING COMPANY. The commander of the leading company will then act as in Sec. 7 (4) the remaining companies forming up in rear.

PART II.

FIELD TRAINING.

CHAPTER III.—THE RÔLE OF THE CYCLIST IN WAR.

Sec. 9.—THE PROBLEM OF HOME DEFENCE.

The peace training of troops must be regulated by their duties in war; it is therefore necessary that all ranks should understand their rôle in war, and that those who are immediately responsible for field training should keep this rôle clearly before them.

The cyclist battalions of the Territorial Force being raised for Home Defence, the enemy whom they may be called upon to meet is one who lands or attempts to land on our shores. An enemy will endeavour to act by surprise and will possibly make feints, and endeavour to secure a harbour. To effect these objects he may in the first instance attempt to land upon the open coast. From a military point of view our harbours may be divided into those which are defended and those which are not, while the coast line may be divided into those portions on which a landing is feasible and those on which it is not. The arrangements for the protection of those harbours, which are defended, are permanent and are in the charge of commanders of coast defences, but there remain a considerable number of harbours and long stretches of coast practicable for landings for the defence of which stationary garrisons are not provided.

Sec. 10.—SPECIAL QUALIFICATIONS OF CYCLISTS FOR COAST DEFENCE.

The first essential in the defence of the United Kingdom against attack from overseas is early information as to the point or points at which an enemy is attempting to land and as to the strength of the enemy's forces. On a general mobilization coastguards will be placed at naval war signal stations, and the responsibility for watching the coast line between these stations will devolve on the military authorities.

The second essential is the development of sufficient strength to prevent the enemy landing or at the least to harass and delay him until sufficient force has been concentrated against him to enable us to attack and defeat him.

Cyclists are especially qualified both to obtain this early information and to develop force rapidly at a given point. The country in the vicinity of possible landing places is almost exclusively of an enclosed character, and this restricts movement of any but very small numbers to the roads.

In an enclosed country cyclists can traverse longer distances and move more quickly than can mounted troops. By using cyclists to watch the coast line economy of troops can be effected, without sacrificing the power of rapid concentration which the employment of a similar number of mounted troops on a similar frontage would entail. Compared with mounted troops cyclists move more noiselessly, create less dust, are less conspicuous, can conceal themselves with greater facility, are more easily transported by rail or boat, and can develop more fire power in proportion to their numbers, since they do not require horseholders. They are more easily billeted and supplied both as regards water and rations. The great disadvantage from which cyclists suffer, viz., rough weather, is in the case of cyclists organized to repel a landing, counter-balanced by the effect that such weather would have on the enemy's disembarkation.

Sec. 11.—SPECIAL DUTIES OF CYCLISTS AND THEIR ORGANIZATION.

The first duty of cyclists in war consists then, in watching such harbours and stretches of coast where a landing is possible as are not within the *rayon* of a defended port.

A second duty consists in obtaining and rapidly transmitting information as to landings and as to the enemy's strength and dispositions.

A third duty consists in preventing an enemy landing or in harassing and delaying him when he has landed. The efficient performance of each of these duties depends greatly upon familiarity with the coast and with the country immediately adjoining it. Cyclists drawn from the Territorial Force and therefore with a limited amount of time to acquire this familiarity have been organized in battalions which have been allocated to counties either with a sea board or lying at no great distance from the sea. Thus cyclists will find their peace centres within easy cycling distance of what may be the scene of their activities in war.

Sec. 12.—PATROLLING THE COAST.

Since an enemy will endeavour to act by surprise, it is possible that an attempt at landing may be made before the fact that hostilities have broken out is generally known in the United Kingdom. Therefore no system of patrolling the coast will be complete which does not include some means of calling out cyclists at any hour from their homes or from their work and despatching them with the utmost rapidity to their stations on the coast. From this it is evident that his rôle demands from each individual cyclist a constant condition of readiness.

The efficient patrolling of the coast demands—

- (a) familiarity with those portions of the coast, on which a landing is possible, and with the effect of various kinds

of weather upon them ; for example, there are portions of coast where very little wind from one quarter will make a landing impossible, but where one would be possible in a strong wind from another quarter.

- (b) knowledge of the roads, tracks and paths in the vicinity of the coast and of their condition at various seasons of the year.
- (c) an acquaintance with the various types of vessels, with naval signals, and with possible anchoring places for vessels of various sizes.

Sec. 13.—TRANSMISSION OF INFORMATION.

The rapid transmission of information demands close touch with the naval authorities on the coast, and complete acquaintance with the telegraph and telephone system of the district. But even this may be insufficient to ensure the transmission of information, for it is to be expected that the enemy's advanced troops will attempt to isolate the point of disembarkation by destroying communications from it to the interior. Thus cyclists may have to rely upon themselves entirely, and a system of transmitting information either by motor cycles or by relays of selected riders must be provided.

Sec. 14.—PREVENTING AN ENEMY LANDING.

The mobility possessed by cyclists fits them especially for the duty of preventing an enemy from landing and of opposing and delaying him when he is landed. While a force is in process of landing it is comparatively defenceless, and even under very favourable conditions disembarkation is a slow and difficult operation. It is at such a time that resolute action by a few riflemen may have great results. A well devised system of warning and a thorough knowledge of the district should bring at the

least a small body of cyclists to the threatened point within a few hours of the appearance of the enemy's flotilla off the coast. This small body, boldly handled, may well cause the abandonment or postponement of the attempt.

Should the enemy effect a landing, it becomes the duty of the cyclists to harass and delay him by every means in their power. It is to be anticipated that an enemy will be careful to choose for disembarkation some spot where covering parties can take up strong positions. But an intimate knowledge of the country may enable small parties to push in between the covering parties and the shore and disorganize the arrangements for disembarkation.

Sec. 15.—CHECKING AN ENEMY'S ADVANCED TROOPS.

So soon as an enemy has obtained a footing upon our shores, he may be expected to throw out a screen of mobile troops, in order to cover his movements, to obtain supplies and transport from the country and to sever communication between the district in which he has landed and the remainder of the United Kingdom.

In this it becomes the duty of the cyclists to impose a limit at the earliest possible moment to the extent of country which the enemy's mobile troops can make good. This can be done by ambushing and cutting off his patrols and by blocking the roads, on which, in an enclosed country, a few men, familiar with their surroundings and sure of the assistance of a friendly population, can delay greatly superior numbers. Time gained in this way, at the outset of a campaign, is of inestimable value in enabling our forces to concentrate, in checking the spread of alarm, and giving time for the removal from the district of railway rolling stock and of horses, vehicles, and supplies, the capture of which will be one of the first objects of the enemy's advanced troops.

Sec. 16.—DELAYING ACTIONS.

If the enemy succeeds in pushing inland, it becomes the rôle of cyclists to rally to previously selected rendezvous, and to check the enemy's progress by fighting delaying actions. His mobility and the knowledge that every minute is bringing support nearer, will enable the cyclist to undertake this duty with boldness and confidence. He may also be able to impede the enemy by destroying stores and material, railway and road bridges, breaking up railway lines, cutting off the water, gas and electric light supply, and removing telephone and telegraph instruments in accordance with such instructions as may be issued on these subjects by higher authority.

Sec. 17.—CO-OPERATION WITH THE OTHER ARMS.

As the cyclists are forced back on the main forces, their duties will approximate closely to those of mounted infantry. They will be used for protective duties, and for assisting cavalry or yeomanry in operations against an enemy's flanks and rear. On the battlefield they will usually be employed on the flanks, but advantage may be taken of their mobility to reinforce weak points in the line, to resist counter attacks, or for a rapid transference of strength from one point to another for offensive action. In the pursuit, cyclists should prove especially useful in an enclosed country for making long detours and seizing positions to head off the retreating enemy. *

Sec. 18.—GENERAL CONCLUSIONS.

The chief rôle of the cyclists in war then is to act as the first line of mobile defence. They have to give warning of the approach of an enemy, to meet him on the coast, and if possible prevent him landing, to fasten on to him when he has landed, to gain time for the concentration of the other arms, and to

co-operate with them in the overthrow of the enemy. These are duties of great responsibility but of great honour, they demand of each individual a high state of readiness, skill, and self-sacrifice and afford wide scope for boldness and initiative.

CHAPTER IV.—MOVEMENTS BY ROAD AND RAIL.

Sec. 19.—GENERAL PRINCIPLES.

1. The general instructions as regards marches contained in "Combined Training," Chapter II, will be followed.

A battalion of cyclists moving in column of route occupies approximately 4 yards of road space for each man in the ranks. This is four times as much as the cavalryman or mounted infantryman, and eight times as much as the infantryman requires. Even this space will be much increased unless a high degree of skill is attained by the individual cyclist and the most careful supervision exercised by officers and non-commissioned officers. The introduction of the free wheel, though it enables the individual to ride with greater comfort and less fatigue, has increased the difficulty of keeping a regular pace and maintaining the regulation distances in column of route. Unless the strictest attention is paid by all ranks to the instructions here laid down, straggling and loss of control is inevitable and the military value of cyclists is prejudiced.

2. The rôle of the cyclist in war makes it probable that cyclists will be able to move to their stations on the coast in smaller bodies than battalions, and ahead of other troops. The addition of a few miles to a day's march is a matter of minor importance to a column of cyclists, and the rapidity with which a number of small cyclist bodies can be concentrated in districts where there is a network of good roads and when the weather

conditions are favourable, makes dispersion less dangerous for cyclists than for any other arm. Therefore, except when tactical considerations or the movements of other troops make concentration upon a single road a necessity, the fullest use should be made of all roads available, when arranging for the movements of cyclist columns. Small columns are not only handier and more easily controlled, but they can move more rapidly than large columns and save the men fatigue. For the same reason the principle has been adopted that when cyclists march in battalion, or in larger bodies, the smaller units, *e.g.*, sections and companies march closed up but with considerable distances between them.

3. It is of great importance that cyclist columns should be led by men who know the roads to be traversed. Commanding officers should enlist men who are capable of acting as guides for all the roads within their areas. It is very difficult for a leader to guide a column by a small scale map without constantly checking the pace, in order to consult his map, and these checks disorganize a column and tire the men. When guides are not available and the map must be resorted to, the leader should, when tactical considerations admit, be 100 yards in front of the columns, touch with him being maintained by connecting files.

Sec. 20.—FORMATION.

1. Cyclists march in file or in single file. File is the ordinary formation of cyclists in column of route, when marching in bodies larger than a section. When a battalion is marching on one road and motor cycle orderlies are not available, the buglers will accompany and act as orderlies to the commanding officer.

2. *Rate of marching.*—The rate of marching will vary from 8 to 10 miles per hour according to the nature of the country and the state of the roads.

Small bodies of cyclists may, even for considerable distances,

attain a higher rate of speed, but the above is the average pace at which a column can travel for any length of time.

Commanders should inform all ranks the rate of speed at which they propose to move, and during the march should frequently enquire whether the pace is too fast for the rear of the column.

It is important that the head of the column should at all times march at a uniform rate, or, in hilly country, where this is not possible, that the correct average rate should be maintained.

3. *Distances.*—The following distances will be preserved when mounted, and in column of route :—

Between companies ...	...	...	100 yards.
„ sections ...	...	...	15 „
„ cycles ...	...	...	2 cycle-lengths.

These distances will be telescopic. For instance, should anything occur to check the pace of the leading body, the one following would continue at the uniform rate of the column, and not check until it has closed right up to the leading body. Or if the leading body, owing to the fact that it is descending a hill, increases its pace, the one following will maintain the uniform pace, throwing out single men as connecting links. These men should be 50 yards apart, and must be instructed to maintain this distance rigidly, more men being sent out if distance is lost by the following body, or the connecting links falling in when their unit reaches them, as distance is gained. The officer commanding a company should always have men detailed for this purpose, and ready to be sent out as required.

4. *Halts.*—Halts should be as follows :—

A halt of 15 minutes, three-quarters of an hour after the head of the column has marched off, to overhaul cycles, and, as a rule, of 10 minutes every subsequent hour-and-a-half, the halting places being so fixed that communication between columns on parallel roads can be established.

Halts should be timed from the arrival of the rearmost body of the column.

At all halts, sections or companies close up on the unit in front; distance should be regained as the column marches off.

The duration of each halt should be notified to all ranks.

Halts should not be made when the head of a column is at the top of a hill; this causes straggling when the march is resumed.

As soon as each unit has closed up, cycles will be stacked on left side of the road and the men will fall out.

5. *Communication.*—Between columns moving on parallel roads communication should be kept by means of communicating parties, one or more parties being despatched as the importance of communication, the vicinity of the enemy, and the distance between columns, may dictate.

The columns should be ordered to halt at certain points, selected beforehand, where cross roads are favourable for communication.

The communicating posts, consisting of two men, furnished with maps, should march with the head of the support of the advanced guard, and be despatched as soon as they arrive at the cross road by which they are to communicate.

They should proceed to the point at which it has been arranged that they are to meet the communicating posts from the other column, usually the post-office of a village, a railway station, or some other definite landmark, deliver the written message they have taken, and receive a similar one from the other post.

They should then return and carry the message they have received to the commander of their column.

Communication between columns may also be maintained by means of motor bicycles or motor cars, if such are available, or by signalling.

Sec. 31.—PASSING ORDERS AND SIGNALS.

Orders will be passed from front to rear of a column.—By signal, attention being attracted by whistle; or by orderly.

From rear to front.—By motor cycle if available; or by orderly.

When a battalion is moving on one road the major should be provided with two motor cycle orderlies, if available, so that he may keep the commanding officer informed of the effect of the rate of marching on the rear of the column.

Signals that refer only to the interior formations of a company, when acting as part of a larger body, will be made with the hand and not with the flag.

Signals and commands are to be repeated by section leaders only; orders are not to be passed along a column by word of mouth.

Cyclist orderlies with orders for the rear of a cyclist column should, unless there are special reasons to the contrary, dismount and wait at the side of the road until the arrival of the addressee. They are not to attempt to rejoin their commanders until the column halts.

Sec. 22.—WEATHER AND THE STATE OF THE ROADS.

Head winds and heavy roads affect the rate of marching of cyclists more than that of any other arm. Marches against head winds are particularly exhausting to the men, and if they must be undertaken it is advisable to increase the number of halts and to alternate riding with pushing cycles. When tactical considerations admit and it is possible to avoid a head wind by making a wide detour, this should be done, even at the risk of greatly increasing the length of the march.

Columns should not ride up long or steep hills, this fatigues the men, with little corresponding gain in time. The men should mount by files as they reach the brow of the hill, descend the hill at the ordinary rate and check the pace on the level until the column is again closed up.

Sec. 23.—STRAGGLING.

A common cause of straggling is want of skill in mounting. Men must be taught to mount quickly by files on reaching a given point. It is important that the head of a column should move slowly at the beginning of a march until the whole column has started. Should the rear units lose distance at the start they are not to attempt to make it up until the first halt.

Casualties, etc.—All men obliged to leave the ranks for any reason should move at once to the side of the road, and join the rear of the column, until the column halts, when they should take their place in the ranks.

Sec. 24.—LENGTH OF MARCHES.

The distance a column of cyclists can march in a day will depend greatly upon the state of the roads and the weather. A column of the size of a battalion should not be expected to cover more than 50 miles in a day, under favourable conditions of road and weather, until the men have had considerable training and are in hard condition. Small bodies composed of selected riders can, under favourable conditions, march 100 miles a day for several consecutive days without undue fatigue.

Sec. 25.—MARCH RULES.

Order of March.—Sections, or companies when marching in battalion, should lead in turn, the order being, if possible, changed at the half-way halt.

Rule of the road.—The rule of the road will be strictly observed; at halts cyclists should clear well off to the left of the road.

Tyres should invariably be washed or wiped after a march to remove grit, which if left might cause puncture, and machines should be inspected to see that this has been done.

Sec. 26.—NIGHT MARCHING.

Night marches by bodies of cyclists larger than a battalion should only be attempted at a distance from the enemy.

Commands should be transmitted by orderlies.

Silence should be strictly maintained, and no smoking allowed.

Rate of march should not exceed 7 miles per hour.

Connecting files should not be more than 30 yards apart.

Lamps should be lighted only by connecting files, and by the rearmost file of each section or company if a battalion is formed. They should be attached to the rear fork of the cycle, and should be shaded with red or green.

When possible a strip of luminous paper should be attached to the back of the saddle of each cycle.

With the above exceptions, the orders for marching by day apply equally to marches by night.

It is to be understood that in peace time the ordinary regulations as to traffic at night are to be observed.

Sec. 27.—MOVEMENTS BY RAIL.

In order to move cyclists rapidly and without fatigue to a threatened point it may occasionally be desirable to send them by rail, when the following rules will be observed. The men will invariably travel in the same train with their cycles. Rifles will be detached before entraining. Cycles should be packed, parallel to the axles of the truck or waggon, alternately handle-bars to saddle and as upright as possible; in covered wagons sufficient space should be left for a man to pass between the cycles and the side of the wagon, which will be next the unloading platform.

On arrival at the destination the men will detrain first and fall in. Six men per company, or more if the company is at a distance from the platform, will be detailed to unload cycles, two of them will be in the wagon or truck to unload, the remaining

four on the platform to receive and wheel away the cycles; as these men approach their company they will call out the numbers of the cycles, and on handing the machines over will return for more.

CHAPTER V.—PROTECTION.

Sec. 28.—GENERAL RULES.

Cyclist battalions when acting with the other arms will be guided by the instructions as to Protection contained in "Combined Training," Chapter IV, but while the general principles there laid down are also applicable to cyclist battalions when acting independently, the characteristics of the arm necessitate certain modifications in matters of detail. It must be remembered that the distances prescribed in "Combined Training" are for a force of all arms and, therefore, have reference to the pace of the slowest arm, i.e., infantry, or else are for infantry alone. The rate of movement of cyclists is dependent on the state of the roads and the weather; under favourable conditions small bodies can move from four to five times as fast as small bodies of infantry, but when parted from his cycle the rate of movement of the cyclist becomes that of the infantryman.

Consequently :

(a) The cyclist when employed on protective duties should only part with his cycle when compelled to do so in order to fight.

(b) When mounted he is dependent to a great extent upon roads.

(c) Under favourable conditions the distance between the parts of a body of cyclists may be four or five times as great as they would be in the case of a corresponding body of infantry.

PROTECTION ON THE LINE OF MARCH.

THE ADVANCED GUARD.

Sec. 29.—Duties of a Cyclist Advanced Guard.

The duties of an advanced guard of a column of cyclists are—

- (a) To protect the main body against surprise.
- (b) To push back the enemy's advanced patrols and find out what is behind them.
- (c) When an enemy has been located in force, to keep touch with him and observe his movements; to endeavour to obtain information as to the strength and composition of his force, and, in the event of the enemy advancing, to hold on to any localities that may have been seized, from which the main body can hamper and delay his advance, till such time as the officer commanding the force has decided on his plan of action.

It is important to remember that the object of the main body of the column of cyclists in either case will be to put a limit to the enemy's freedom of movement at the earliest possible moment.

Sec. 30.—Organisation and Strength of the Advanced Guard.

A force of cyclists moving independently will usually move by more than one road (see Sec. 19 (2)). The commander of the force will decide whether the whole force is to be protected by one advanced guard or whether each column will make its own arrangements for its protection. In making his decision the commander will be guided by the number of roads available and by the tactical situation. Where each column can be allotted a road throughout the march, it will usually be more convenient for each column to have its own advanced guard. This does not absolve the commanders of columns from the duty of ascertaining what arrangements have

have been made for the security of their commands, and in the event of any doubt they must make their own dispositions.

The duties of a cyclist advanced guard and the rapidity with which it can be reinforced will make it seldom necessary for its strength to be greater than one-eighth of the force it has to cover (*vide* Sec. 31).

Sec. 31.—*Distribution and Action.*

The distribution of an advanced guard will depend chiefly upon the number and state of the roads, the weather, and the character of the country. When roads are bad and the weather is unfavourable, the distances between the parts of an advanced guard must be reduced. It is not possible for a cyclist advanced guard to search all woods, buildings, and enclosures within effective rifle range of the road to be followed by the main body, without sacrificing the mobility which is the reason of their existence, and without preventing the main body from fulfilling its rôle of checking the invaders as early as possible. The first troops met by the advanced guard will be the enemy's advanced patrols. These will be scattered in small parties in a country they do not know and will be surrounded by a hostile population. In an enclosed country their movements will be confined to the roads and they will rarely have either the time or the local knowledge to set ambushes. Under these circumstances an advanced guard may safely act with boldness. The vanguard will meet and push back the enemy's patrols and find out what is behind them, the main guard will assist the vanguard and deal with the supports to the enemy's patrols.

Sec. 32.—*The Vanguard.*

The most effective method by which the vanguard can effect its object in enclosed country is by using its mobility to envelop the hostile patrols when met. It will usually move in small

parties of from three to four men at distances which will vary with the character of the country and the number of roads, which branch off from that which the column is to follow. Touch should be maintained between these parties by connecting files at distances of 50 yards. When the point or leading party is stopped by a hostile patrol, the parties immediately in rear will endeavour to develop rapidly an enveloping attack either by moving down side roads or by dismounting and moving across country. Promptness on the part of commanders of parties in using the first side roads or tracks available, in order to outflank or get in rear of opposition, when it is met, will confuse and deceive the enemy's patrols.

In open country cyclists meeting mounted troops should at once dismount and open fire, and take advantage of their mobility to increase quickly the volume of fire.

Reports from the advanced patrols will be sent to the commander of the main body through the commanders of the vanguard and advanced guard. Orderlies taking these reports will remain with the main body until a suitable opportunity occurs for them to rejoin. The commander of the vanguard will see that his rear party is sufficiently strong to enable him to reinforce his advanced parties, if they become depleted through detaching orderlies.

Sec. 33.—The Main Guard.

The duties of the main guard approximate closely to those of a main guard of a force of all arms, i.e., it will support the vanguard when necessary, and if serious resistance is encountered it will occupy and hold a suitable position pending the arrival of the main body. The commander of a cyclist advanced guard, should not hesitate to engage the enemy when found, for the rôle of cyclists being to delay the enemy's advance to the utmost he need not fear to commit the main body.

FLANK GUARDS.

Sec. 34.

Cyclists are well suited for employment as a detached force to hold a position on a flank from which the line of march of a column might be threatened. The speed at which cyclists can rejoin when their duty has been performed makes this the most suitable method of employing cyclists as a flank guard.

* DELAYING ACTION.

Sec. 35.

If an enemy has made good his landing and has been located, delaying actions become the most important duty of cyclists acting independently. Here, again, knowledge of the country will give cyclists their principal advantage over the invader. A cyclist battalion in its own area will have the advantage of knowing the situation and capabilities of every locality from which the advance of an invader can be disputed. The choice of such localities will be influenced largely by the number of roads running from them in the direction in which the eventual retirement must be made. In enclosed country when the fences and banks afford numerous opportunities for delaying action, this will be the chief consideration, though the advantage of having a downward slope to ride away on, when the moment to retire arrives, must not be overlooked.

It will often be possible for cyclists to delay an enemy's advance by attacking his advanced troops as they emerge from enclosed country and by driving them back and so preventing the enemy deploying.

When a number of roads are available, the speed with which cyclists can retire, will enable them to hold on against superior force longer than other troops, nor are they obliged, as

infantry are, to retire very gradually. When operating in country which they know, it is not necessary for them to occupy covering positions in rear owing to the rapidity with which they can withdraw. Thus the greater part of a cyclist force, fighting a delaying action, may be deployed at the outset in the first line. This will have the advantage of deceiving the enemy as to the strength of the force opposed to him and causing him to advance with caution. Cycles should be grounded, and not stacked, on the side of the road with the handles of the cycles in the direction in which it is intended to retire. It is of great importance that the cycles should always be grounded in the same order in the column and that every man before moving off should carefully note the position of his cycle. A cycle guard of one non-commissioned officer and four men per company will be left in immediate charge of the cycles. These should be picked riders and shots and should remain until the last, in order to cover the final retirement of their companies. The position selected for the cycles should be under cover but as close as possible to the line, which it has been decided to hold, provided always that it is upon a road or track or on such ground as will not prevent a rapid retirement by cyclists mounted. Thus a road running close in rear of the line to be held, with a number of other roads running from it in the direction of retirement is advantageous for delaying action. In such a case the commander must allot to each part of the force the road by which it is to retire, and if these roads meet must regulate the retirement so that columns shall not cross.

Cycles will not be taken into the firing line.

PROTECTION WHEN AT REST.

Sec. 36.—Day Outposts.

A force of cyclists acting independently can best protect itself by day when halted by an efficient system of patrolling.

This will usually take the form of a series of standing patrols on all approaches by which an enemy might advance, with reconnoitring patrols pushed still further forward. It should rarely be possible for a hostile force to approach by day unobserved within 5 miles of a force of cyclists halted.

Sec. 37.—Picquets.

Picquets should usually be posted at or near cross roads and road junctions, and it is an advantage if the picquets are connected by a lateral road. One man in each picquet should be posted with his cycle on the nearest road in readiness to carry a message when required. The cycles of the picquet should be grounded on a road in the vicinity of the picquet. Rifles are on no account to be left with the cycles.

Sec. 38.—Standing Patrols.

Standing patrols consisting of a non-commissioned officer and from three to six men will be found from the picquets. These standing patrols, in the case of cyclists acting independently, take the place of sentry groups. A picquet may find from one to three standing patrols according to the number of roads to be watched. Under favourable conditions of road and weather these patrols may be from a mile to a mile and a half from the picquet. One or two men according to the size of the patrol and the extent of country to be watched will be posted as sentries, where they have a good view of the approaches, the remainder being under cover close by. The cycles of a patrol will be grounded on a road with the handles of the cycles in the direction of the picquet, the men will invariably have their rifles with them. Standing patrols should usually be relieved from the picquet every six hours.

Sec. 39.—*Reconnoitring and visiting Patrols.*

Reconnoitring patrols will usually consist of a non-commissioned officer and three men, who should if possible be trained scouts. They should reconnoitre not less than five miles in front of the standing patrols and should return by a different road to that by which they go out. When passing a standing patrol they should inform the commander, how far to the front they are going and by which road they will return. If an enemy is discovered one man will be sent back with information while the rest remain in observation.

Visiting patrols will visit standing patrols, in the manner laid down in "Combined Training," Sec. 91.

Sec. 40.—*Night Outposts.*

Night outposts will be regulated on the same principles as day outposts (sec 36) with the exception that standing patrols should rarely be more than half a mile in advance of the picquet, that mounted reconnoitring patrols should be discontinued and the number and strength of visiting patrols should be increased. Visiting patrols by night should be sent to the picquets on either flank. Standing patrols and neighbouring picquets should be informed before dark of the direction from which visiting patrols will approach them, and these patrols should invariably follow the same route.

Sec. 41 — *Application of "Combined Training."*

With these exceptions the instructions laid down for outposts in "Combined Training" will be adhered to.

CHAPTER VI.—RECONNAISSANCE.**Sec. 42.—GENERAL PRINCIPLES.**

The general principles of reconnaissance are contained in

"Combined Training," Chapter V, and should be studied in conjunction with this chapter, which deals with the method of instruction and the details of reconnaissance.

The cyclist enjoys special advantages over the other arms as a reconnoitrer. He moves silently and swiftly, such tracks as he leaves are less conspicuous than those of other troops, he can cover great distances without undue fatigue, and he has not a horse to consider. In war the population with which he will have to deal may be relied upon to give him every possible assistance, and he will be employed, in the early stages, at least, in country with which his peace training has made him familiar.

It is not sufficient to train a small number of specially selected scouts to perform reconnoitring duties, though these form an indispensable part of the reconnoitring equipment of every cyclist battalion. A battalion of cyclists may be required to patrol a section of the coast continuously for long periods, and this will tax the energy and endurance of every individual, while, when the enemy has landed, it may fall to the lot of any cyclist to obtain information of the greatest value.

It should be impressed upon every cyclist that he can do much to train himself as a reconnoitrer in his own time. His cycle will usually place the area in which he will be employed in war within reach of his home, and he should be encouraged to use every opportunity to make himself familiar with this area, and to find his way about both by day and by night with and without a map. •

Sec. 43.—Gaining Information.

Officers and scouts should be trained in peace to know what points to notice and what to reject in making reports.

Information may be gained by personal observation of the enemy; by questioning the inhabitants, prisoners, and others, or by tapping telegraph wires. A faculty of deducing informa-

tion from certain signs, such as tracks, dust, fires, deserted camp-grounds, uniforms, may be acquired if scouts are practised in doing so in peace.

In questioning prisoners it is as well to take them separately out of hearing of others. The questioner should endeavour to lead them to suppose that he knows more than he really does about the enemy, and give the impression that to many of the questions he already knows the answers, but is putting them to test the truth of the speaker.

People not accustomed to seeing large numbers of troops are very apt to exaggerate their strength, a fault which a scout should be careful to avoid. Information as to the uniforms of the enemy, number of regiment on the buttons or badges, &c., may be of great use.

The possible invaders of the United Kingdom are limited to a few of the great continental powers. The cyclist scout should know something of the uniforms and organization of the armies of these powers, where to look for the distinguishing numbers and badges of regiments, badges of rank, &c., what are the usual formations, and what is the normal strength of the various units.

If troops are moving along a road or defile, they may be timed passing a certain point. For each minute, the following numbers would approximately go past :—

Cavalry at a walk, in sections	...	...	...	120
Cavalry at a trot, in sections	...	...	...	240
Artillery guns, or wagons, at a walk	...	...	...	5
Infantry, in fours...	...	...	...	200

Sec. 44.—*Instruction in Reconnaissance and the Training of Scouts.*

Every cyclist must be trained to reconnoitre, which is the most important of his individual duties. Those who show
(3536) D

special ability will be further trained to become scouts or despatch riders.

In every battalion the following should be the minimum number of trained scouts :—

- 1 officer, scout leader.
- 1 serjeant scout.
- 8 battalion or 1st class scouts.
- 16 company or 2nd class scouts.

Scouts will be classified annually as 1st and 2nd class and badges will be awarded for one year.

In addition to the above there will be at least two trained despatch riders in each company. These will not only be trained to find their way with messages (verbal as well as written), but also in all details necessary for acting as orderlies.

Scouting cannot be learned from books, but only by the zeal and intelligence of the man himself. To attain success the scout must combine great pluck with great cunning ; he must be prepared to sacrifice himself if necessary, and in all cases the greatest personal credit and honour are open to him as the result of his work, whatever may be his rank.

The following course of instruction for the training of scouts will apply also to the training of every cyclist in reconnaissance ; the latter will, however, only be instructed in the elements of the course :—

(a) *Ability to Find the Way.*—A scout must be able to find the way, first, by practical map reading ; second, by memory of the map ; third, by knowledge of stars, sun, and compass, &c. ; fourth, by landmarks ; fifth, by questioning the inhabitants.

It may often happen that the cyclist will be employed outside his own area, and he must be able to work in country with which he is not familiar.

It should be a habit with him to notice the general direction taken and changes of direction subsequently made.

(b) *Map Reading and Landscape Drawing.*—The United Kingdom has been so completely surveyed and modern maps have been brought to such a high state of perfection, that it is not necessary that the cyclist should be proficient in military sketching. He should be encouraged to have the 2 m. = 1 inch general staff map of his area always in his possession, and to note and report any changes in the country, such as new buildings or roads, railway lines, &c. He should be instructed in the conventional signs and the principles of map reading as contained in the "Manual of Map Reading and Field Sketching." Those men who have an aptitude for drawing and are proficient in map reading, should be encouraged to practice themselves in landscape sketching. (Chapter XIV, "Manual of Map Reading and Field Sketching and Reconnaissance.")

(c) *Use of Eye and Ear.*—He should be practised in observing the same distant object both with and without glasses; in noting small signs or details, both far away and underfoot; to noting distant sounds and their meanings; in making uses of the senses of smell and hearing for night work.

It should be a point of honour with a scout that nobody shall be able to draw his attention to any small detail either far or near that he has not already seen for himself.

(d) *Concealment.*—His attention should be drawn to the importance of taking cover and of selecting a background to suit the colour of his clothing, &c.; to the importance of remaining perfectly still; of avoiding the sky-line; of the use of trees; of selecting look-out points when on the move, and getting from one good one to another quickly, and unseen.

(e) *Tracking.*—Tracking is an invaluable aid to scouting, only attained by constant practice.

(f) *Identification of Shipping.*—Some knowledge of the various types of shipping is indispensable to the cyclist when employed in coast patrolling.

"Fighting Ships," by F. T. Jane; published annually by Sampson Low, Marston and Co., Ltd., gives illustrations of the
(3536) D 2

ships of the navies of the various powers and affords a valuable means of indoor instruction in this branch of cyclist scouting.

(g) *Use of Telescope.*—The rapid picking up and focussing of objects with the telescope particularly on the coast requires constant practice.

(h) *Reporting.*—As the result of a scout's work depends on his ability to furnish a useful report, he should receive special instruction in this subject. Reports are to be short and to the point. The scout should be trained in reporting on the enemy and also on the country. Written reports to be in telegraphic language. The wording of verbal reports to be thought out beforehand. Diagrams and freehand sketches, however rough, are useful. For instructions as to drawing up reports, see "Combined Training."

Elementary instruction in the foregoing points should be followed by practising the men as scouts and patrols; an enemy invariably being employed for this stage of instruction.

Scouting competitions and practice give the best experience in all these details, and it is left to the ingenuity of instructors and commanders to devise the most practical ideas towards developing the scouting efficiency of their men.

Sec. 45.—General conduct of the Reconnaissance of an Enemy.

As a general rule it will be the duty of cyclists to obtain information of the enemy while delaying or preparing to delay his advance; that is to say either while advancing to meet him as described in Sec. 31 or while engaging him as described in Sec. 35. There is therefore this distinction between reconnoitring cavalry and reconnoitring cyclists, that while the former usually avoid fighting the latter will usually have to fight. Cyclists may be required to carry out a reconnaissance in front of an army either independently or in co-operation with cavalry, in which case it should be made quite clear that information and not delaying the enemy is the first object, (See Sec. 48.)

Sec. 46.—Action of a Reconnoitring Patrol.

Reconnoitring patrols detailed to obtain information as to the movements and dispositions of the enemy's columns, should, avoid fighting, and endeavour to obtain information by stratagem. Such parties therefore should be as small as possible, but they should contain sufficient men to ensure that the information gained is transmitted without delay to the superior commander to whom reports have to be furnished.

In starting to carry out a reconnaissance, the commander of a patrol should know :—

- (a) On what points information is specially required.
- (b) Approximately to what distance and in what direction he has to go.
- (c) About how long he may expect to be away.
- (d) Where he is to send in reports and by what means.
- (e) What is known of the enemy.
- (f) The probable moves of his own main body and of other detachments.

The officer sending out a patrol should, therefore, include these points in his instructions, and should then give the leader a free hand in carrying them out.

Similarly, the patrol leader, when sending out his scouts, should give them the same kind of instructions.

After receiving his instructions and forming his plan of action to meet them, the leader should explain the whole, or as much as may be desirable, to his subordinates, so that every man will know how to carry on the duty in the event of accidents. Common sense, not rules, must guide the movement and conduct of a reconnoitring party. There is no fixed rule for the formation of a patrol or party for reconnaissance, but it should be arranged so as to be of the best form for obtaining information, and for avoiding capture.

Moving by night up to the neighbourhood of the enemy and then observing him from a concealed position by day, will often

result in successful reconnaissance which could not otherwise be carried out. Information may also be obtained by capturing enemies' scouts engaged on similar work; this may often be effected by lying out for them in likely places at night and early dawn.

When moving by night a commander must not allow his men to strike matches or smoke.

When moving by day, every means must be taken to avoid being seen by the enemy. If seen, the enemy should be deceived as to the commander's intentions. Scouts should keep in the shadows as much as possible by day or at night. A bright button or a polished bicycle handle may disclose the presence of an otherwise hidden patrol. Every precaution must naturally be taken to prevent surprise when moving or halted. Small reconnoitring parties should not rest all together in one place, but should remain scattered, so that all will not be captured if suddenly attacked. The position of a night bivouac should invariably be changed after a short stay, and as a rule, shortly after darkness has set in. Every member of a patrol must at all times be on the alert, and should not let others discover dangers, tracks or signs, &c., for him.

As a rule, no man should carry any written instructions or private diaries or papers, such as might give information to an enemy if he were captured. Bogus notes may be carried for the purpose of misleading an enemy in such an event.

Any place that is likely to harbour an ambush, such as a wood, ravine or village, if it cannot be passed by a flank move, must be approached with full precaution, that is, by sending advanced scouts forward or round it before getting the whole patrol within its reach. It is usually best for advanced scouts to move quickly when near such a position, and to get round its flanks and rear as rapidly as possible. This disconcerts the enemy and often makes him expose his position.

Advanced and flank scouts should have a free hand in carrying out their work of feeling the way for a patrol, and this is

best done by getting quickly from one good look-out point to another, and then keeping hidden while they take a good look round to see if the ground is clear for another forward move.

Sec. 47.—Contact with the Enemy.

If the enemy is not found where he was expected, the reconnoitrer should think for himself what his commander would like him to do ; information to this effect, usually called "negative information," should be sent back, giving the hour of the visit, and the scout should push on until he finds the enemy.

When the enemy has been found, he should, as a rule, be followed up ; being watched from safe hiding-places. Information as to his strength, dispositions, and moves, should then be sent in to the support.

Patrols, except as noted in Sec. 45, are not as a rule intended to fight, unless with the object of getting a prisoner for information ; and they must remember that to fight generally draws attention to their presence, which above all things they must avoid. The usual course on sighting an enemy's patrol would be to lie hidden and let it go by, keeping a look-out for capturing any orderlies it may send back with messages.

Patrols must remember that their sole duty is to gather and send back information.

If a patrol is cut off by the enemy, its members must make every effort to get away, so that at least one may arrive back with the information already gained. If only threatened, the patrol should spread out and edge away until night comes on, if necessary breaking up and rallying again at the last halting place or other pre-arranged spot. For this reason, every member of a patrol, while advancing, must take notice of all landmarks and distances as he goes along, so as to be able to find his way back, either to the last halting place as a rallying point, or to the support or the main body ; in doing this, he

should not adhere to the road by which he came, as that may lead him into ambushes. When working in the presence of any enemy, scouts must be both bold and cunning, and if stopped at one point must try again at some other, so as to obtain the required information somehow.

When scouts are sent out to a long distance from their patrols, they should usually work in pairs, but while they should co-operate they should rarely keep close together for that purpose. Scouts and patrols must always be prepared to be out for several days, and day and night must be alike to them for working or for resting.

Men who are accustomed, by practice in peace-time, to work at night will succeed in scouting, where others will fail or lose their lives.

Sec. 48.—Reconnaissance by Larger Bodies.

It may occasionally happen that it will be necessary to clear up a situation by means of bodies of cyclists detached to a considerable distance from the main body. Such detachments are called *strategical reconnoitring detachments*.

Strategical reconnoitring detachments avoid all fighting and act by cunning and stratagem, hence their conduct should usually be entrusted to officers.

To enable them to distinguish between what is important and what unimportant and adapt their action accordingly, they should be given all available information regarding the enemy, and be told the intentions of the superior commander. They should as a rule be directed against the probable lines of the enemy's approach.

The strength of these detachments should be limited; for if large they will find it difficult to escape observation; on the other hand, they should be sufficiently strong to admit of two or three reports being sent back. At least two men should be sent with a message, each of whom should carry a copy; for a

single man may break down. Patrol leaders must therefore use considerable judgment in deciding whether a message is of sufficient importance to justify sending it back.

Patrols will usually be directed to return to their detachments within certain time limits, their reliefs, however, being sent out before such limit expires.

In carrying out reconnaissance duties the following principles are to be observed :—

(a) The commander of a reconnoitring unit will take as his objective the most distant point about which information is required.

(b) The composition and strength of a reconnoitring detachment must vary according to the difficulty of the task and the distance to be covered.

(c) A reconnoitring detachment should not be tied down to any particular road, nor should it, as a rule, be directed to reconnoitre a zone of country ; its march depends solely on its objective and on the enemy.

(d) In the event of a patrol having one or more secondary objectives, the necessary detachment for reaching them should only be made when required, and should be as small as possible. The greatest economy is necessary in the use of detachments for secondary purposes.

(e) When reconnoitring patrols have to proceed to considerable distances and it is necessary to support them with one or more companies, the latter should remain as concentrated as possible, and any detachment made from them should be limited to what is absolutely necessary.

Sec. 49.—*Transmission of Information.*

No system of reconnaissance is complete which does not provide for the rapid and safe transmission of information when obtained.

Cyclists will have exceptional facilities for this, for they will, under ordinary circumstances have the telegraph and telephone systems of the country at their disposal. Commanding officers should endeavour to enlist a proportion of men with some knowledge of telegraphy; the services of such men would be invaluable in the event of telegraph offices being abandoned by the ordinary operators. In using the local telegraph system it should be remembered that small village offices are often only provided with slow-working instruments and with operators who are not accustomed to work at a high rate of speed, therefore if a number of lengthy messages have to be despatched it will usually be quicker to transmit them by motor cycle to a larger office. The headquarters of every battalion should be provided with a telephone directory of its area, and companies should be informed on mobilization of the position of all telephones in their sections. As, however, telegraph and telephone lines may be interrupted, it is necessary to provide for an alternative system of transmission. This, in the case of cyclists, will take the form of motor cycles and relays of cyclists. In the case of motor cycles, supplies of petrol should be arranged along any route which will be used for any length of time. Messages sent by motor cyclists should also be sent by relays of ordinary cyclists.

Such relays should be established at distances of 10 to 15 miles apart or less if roads are bad or the weather unfavourable, and should usually be at cross roads, churches, inns or some point which is clearly marked on the map. One man of each relay will invariably be on the road with his machine in readiness to mount, the remainder may fall out but should not move from the vicinity of the post. On a messenger approaching, the waiting man will mount and ride slowly in the same direction as the messenger, and will receive the message from the latter as soon as he is overtaken. A messenger arriving at a post will remain with it, until he has rested and an opportunity arises for taking a return message.

A messenger arriving at a relay post and finding no one there should proceed to the next post, if possible by another road. If a relay post is driven away by the enemy, it will at once warn the posts on either side. The commander of a relay post will keep a record of the names and times of arrival and departure of all messengers who arrive at or leave his post.

CHAPTER VII.—PROTECTION OF A COAST LINE.

Sec. 50.—*General Principles.*

The protection of a coast line is the most important and responsible of the duties of the cyclist in war. For its efficient performance it is essential that the individual cyclist should be trained and practised in the general duties of reconnaissance, as described in Chapter VI; once a satisfactory standard of individual skill has been attained, the success of coast protection depends chiefly upon organization. As has been explained in Chapter III, each battalion of cyclists has been allotted an extent of coast which it will be its duty to watch in time of war. The objects to be attained are:—

- (a) To give instant warning of the approach of an enemy.
- (b) To assemble the largest possible force in time to oppose the enemy at the moment of landing.
- (c) If the enemy succeeds in landing to harass and delay him in order to cover the concentration of our forces.

For these purposes it is necessary to arrange for—

- (1) A thorough reconnaissance of the area both from our own point of view and from that of the enemy.
- (2) An efficient system of look-out stations and patrols to watch all possible landing places both by day and by night.
- (3) Such a distribution as will ensure a rapid accumulation of force at any threatened point.

- (4) The rapid transmission of information to army headquarters and between the various parts of the battalion.

It is neither possible nor desirable to lay down any pattern for general adoption. General officers commanding-in-chief will arrange the system under which each battalion will be employed.

The following are the chief factors which affect the problem, and these vary in each area.

- (a) The number and extent of the possible landing places.
- (b) The number, condition, and general direction of the roads.
- (c) The local telegraph and telephone systems.
- (d) The nature of the positions covering the landing places.
- (e) The facilities for delaying the enemy's advance.

Sec. 51.—Distribution of the Battalion.

A cyclist battalion when employed in watching the coast will usually be organized into look-out stations, supports and reserve. It is important to remember, in arranging the organization of a given area that the effect of a comparatively small number of rifles at the moment when an enemy is attempting to land is greater than the effect of a much larger number when once he has landed. A small amount of opposition will make a landing on an open beach impracticable; a force in boats is helpless until it has landed, while the guns of an enemy's fleet will have little effect upon such a target as presented by small parties of cyclists behind cover. It is, therefore, advisable, when the conditions of roads and communication do not facilitate the rapid movement of a central reserve established inland to any point which may be threatened, to reduce the strength of the reserve and increase the number and strength of the supports,

or other posts nearer the coast, it may even be advisable where the roads and means of communication along the coast are more favourable than those running from the coast inland to post a whole battalion on the coast line.

Sec. 52.—*Look-out Stations.*

The coast line allotted to each battalion will be divided into sections, which will be numbered from right to left. Each section will be allotted to a company which will find a sufficient number of look-out stations to watch the approaches to all possible landing places. Look-out stations should be as near as possible to a telegraph or telephone station, all the stations of a battalion will be numbered from right to left and each will have a distinctive telephone or telegraph call. Look-out stations will consist of a N.C.O. and from six to nine men; one man will be posted as a look-out, one man will be at the telephone or telegraph, and if the out-look is at a distance from the station, one man will be employed as orderly between the look-out and the station. The commander of each look-out station will be told—

- (1) The position and extent of possible landing places within view of his station.
- (2) The situation of possible anchorages within view and the channels by which they can be approached.
- (3) The number and call of his station and the position, calls and numbers of the stations on his right and left.
- (4) The position of the support and of battalion headquarters and the most rapid means of communication with them.

Sec. 53.—*Supports.*

The position of supports will depend on the road and means

of communication. It is advisable to keep the support intact at the headquarters of each section, but the position of the roads may make it necessary to divide the support. Where a good coast road exists the support may be conveniently placed on the coast, at a possible landing place. The deciding factor is that the support should be able to reach a threatened point as rapidly as possible.

Sec. 54. — *The Reserve.*

The strength and position of the reserve will depend upon the number of possible landing places in the area, the roads and the facilities for communication (*vide* Sec. 49). Here again the deciding factor is the facility with which any threatened point may be reached.

Sec. 55. — *Headquarters of the Area.*

The headquarters should be established where the telegraphic or telephonic communication best admits of a general control over the whole area, *e.g.*, at the telephone exchange of a centrally situated town. It is advantageous but not indispensable that the headquarters should be with the reserve.

Sec. 56. — *Concentration.*

A system of signals for warning and for concentration must be prepared and tested in peace. Each system will vary with the local conditions. It must be remembered, however, that an enemy attempting to land in the United Kingdom will probably endeavour to draw off the watchers by feints from the point where it is intended to make the real landing. It is therefore an essential condition of any system that the look-out stations are for observation and not for resistance, and that they remain at their stations until the last possible moment to give warning of any change in the enemy's movements. The duty

of opposing the enemy's landing will fall in the first instance upon the supports and the reserve, the look-out stations will only be withdrawn on the order of the officer commanding the battalion when it is clear that a serious landing is being attempted. For the same reason the roads by which the supports and the reserve are to concentrate to any given point should be settled in peace. Whenever those roads pass a look-out station each unit on its way to the place of concentration should call for any change of orders; when they do not orderlies should be sent from the nearest look-out station to the road to intercept units when necessary. Concentration should be frequently practised both by day and by night.

Sec. 57.—Night Patrolling.

Possible landing places must be patrolled at night. It will usually be convenient to patrol between look-out stations from right to left of each section, and between sections when necessary. Especial vigilance is required at night, as an enemy may be expected to endeavour to approach the coast under cover of darkness and to try to land parties to cover his main disembarkation. Patrols should work in pairs and when no road is available they must work dismounted.

Sec. 58.—Reliefs.

As the work of look-out stations is exacting and responsible and may last for long periods, a regular system of reliefs must be organized. Men should be allotted permanently to look-out stations, which should be formed in two reliefs, one relief being with the support while the other is at its station. A relief will be on duty for forty-eight hours. One N.C.O. and six men being the normal strength of a look-out station, a company will usually find four stations or one station per section.

Companies should be exchanged between the supports and reserves at regular intervals.

Sec. 59.—Covering Positions.

Wherever an enemy may land he will probably seek to secure a position with the first troops landed, from which they can cover the disembarkation of the remainder. It is therefore the duty of cyclist battalions to make themselves familiar with such positions in their area, to know their strong and weak points, and the best method of delaying an enemy's advance from them inland.

Sec. 60.—Delaying Action.

In order to fulfil their rôle of delaying the enemy's advance cyclist battalions must be familiar with areas which lend themselves to delaying action. They must ascertain by careful reconnaissance how the defensive capabilities of such positions can be improved and what local material is available for the purpose. Rallying to selected rendezvous from look-out stations should be practised both by day and by night. The general requirements of delaying positions for cyclists are given in Sec. 35.

**CHAPTER VIII.—CYCLISTS IN CO-OPERATION WITH
THE OTHER ARMS ON THE BATTLEFIELD.**

Sec. 61.

GENERAL CONSIDERATIONS.

Cyclists may be required to take part in a general engagement with the other arms ;—

- (1) When they have been forced back by the superior numbers of an enemy upon the army whose concentration they are covering.
- (2) When the main body of a force whose advance they have been covering either independently or in co-operation with cavalry has arrived within striking distance of the enemy.

In either case the principles upon which the tactical employment of cyclists depends are similar. The preliminary dispositions of both armies will be much influenced by what has happened during the opening phases of the campaign and by the manner in which the cyclists have fulfilled their rôle. If they are successful in delaying the invaders advance and in hampering his movements they will not only have checked the alarm which any invasion must cause and have restored confidence, but by gaining time they will have allowed our army to concentrate in superior force and have enabled it to act more readily on the offensive. The general officer commanding will have all the information he requires, full liberty of manœuvre and choice of ground.

If, however, the cyclists have not succeeded in delaying the enemy's advance the hostile mobile troops will be able to interrupt communications and spread alarm through the country, our army will be thrown on the defensive, the general officer commanding will be in ignorance of the enemy's strength and dispositions and will be uncertain and hesitating in his movements.

A battle under modern conditions will usually resolve itself into the following phases :—

- (a) The introductory phase, when advanced guards become engaged, during which each side will endeavour to discover its opponent's dispositions and prepare for the encounter.
- (b) The preparatory phase.
- (c) The development of the action.

- (d) The crisis.
- (e) The pursuit or retreat.

THE INTRODUCTORY PHASE.

Sec. 62.

The tactical weapon of cyclists is fire action combined with mobility. To enable them to employ their mobility they require roads and space in which to manoeuvre. Cyclists should therefore be employed very exceptionally in the cramped space between two armies which are in contact and should be withdrawn during the introductory phase and concentrated upon a flank when their power of rapid movement can have scope. It may be advantageous to withdraw cyclists to such a distance as to remove them entirely from the sphere of action of the enemy's cavalry, so that by a rapid advance they may be able to act by surprise.

THE PREPARATORY PHASE AND THE DEVELOPMENT OF THE ACTION.

Sec. 63.

During these phases of an action much must be left to the initiative and enterprise of individual cyclist commanders. These must however remember that it is the later phases of a battle which offer the greatest opportunities for the decisive action of cyclists and that these opportunities can only be seized if sufficient force is retained in hand to enable action to be really effective. Whenever the duty for which detached parties of cyclists have been detailed is accomplished they must on their own initiative move to rejoin their main body.

When bodies of cyclists are assembled to a flank and possibly

at a distance from a battlefield, it is the duty of cyclist commanders to keep in close touch with the course of the engagement, so that no opportunity of favourable action may be let slip. It will usually be best for the commander to remain in personal observation and to communicate his orders to his command either by telephone, telegraph, signal or orderly.

The network of roads, telephones and telegraph lines which now exists in the United Kingdom will often enable bodies of cyclists to be controlled and brought up from considerable distances.

THE CRISIS.

Sec. 64.

It is the crisis of battle which offers the greatest opportunities for cyclist action on the battlefield. When two forces have been engaged for many hours, the state of tension becomes very high and both sides become completely absorbed in what is taking place in their immediate front. It is at such moments that the sudden appearance of a comparatively small body of riflemen upon the flank or rear of one force will have great effect on the course of the engagement. For such action cyclists are by the swiftness and silence of their movements especially suited. Their usual method of action will be to seize some tactical point, such as a commanding hill, buildings, a wood, bridge, or defile from which they can bring fire to bear with effect or can block an enemy's line of retreat. As the value of cyclists depends on their mobility, which again is dependent upon their having their cycles close at hand, they should seldom be required to leave their machines and advance across country in an attack upon a position, that is to say, that while their action is in a broad sense offensive, it should usually be locally defensive.

To enable cyclist commanders to distinguish those tactical

points which are suitable for such action as has been described, they must personally reconnoitre well ahead of their commands under the escort and with the assistance of their scouts. When large bodies of cyclists are employed in this manner the greatest possible use must be made of the available roads, at least one road being allotted to each battalion.

THE PURSUIT OR RETREAT.

Sec. 65.

In enclosed country cyclists will be especially useful in the pursuit. It is only by an energetic pursuit that the fruits of victory can be gathered; it must be undertaken with every available man, and must be continued until the enemy is completely scattered. The utmost endeavour must be made to press the enemy's demoralized columns and turn their defeat into a rout; the pursuit must be kept up with vigour by day and by night without regard to the men. The frontal pursuit will, in most cases, be taken up by the infantry; on the other hand, the pursuit on the flanks, on parallel lines to the enemy's retreat, offers peculiar advantages to cyclists, who, on account of their mobility, may repeatedly attack the flanks of the enemy's columns, with the ultimate intention of anticipating him on some point on his line of retreat. Should retreat become necessary cyclists must at all costs delay the enemy's advance, and give time for the main body to reform. In such cases their action becomes similar to that when they are covering the concentration of the army.

THE DEFENCE.

Sec. 66.

Cyclists will often be called upon temporarily to occupy localities for defence, especially in small bodies. In the

defence, as in the attack, concealment and surprise is of importance, but the paramount consideration must always be to bring an effective fire to bear on the attack, chief attention being paid to securing a wide and open field of fire. Whenever time and means permit, the position should be put into a state of defence.

During the initial stages of a defensive engagement the cyclist commander should employ the minimum number of men, retaining the remainder in readiness to act, as circumstances may demand, when the enemy has disclosed his dispositions. It will usually be possible by keeping as large a reserve as possible upon a road to transfer it rapidly to some point whence it can attack the enemy in flank or rear, and in this manner a force may successfully repulse one which is greatly superior in numbers.

The value of enfilade fire is as great when acting in defence as in the attack, and occasions will constantly occur when a small party, favourably situated on a flank may effectively harass the enemy's advance, particularly if assisted by machine guns.

The range at which fire should be opened depends on circumstances. When the object of the operation is to delay the enemy, it will usually be advisable to open fire at long range, in order that he may be forced to deploy at some distance from the position; on the other hand, to effect a surprise it may often be advisable to allow the enemy to advance to within decisive range before doing so.

The arrangements for grounding cycles must be carefully thought out; they should be as close as possible to the position to be defended, but should be on a road or on such ground as facilitates rapid movement when mounted. The men before being moved off from the place where their cycles are grounded must be made to note their exact position.

MACHINE GUNS.

Sec. 67.—General Principles.

1. Surprise is a powerful factor in the effective employment of the machine gun; every effort must, therefore, be made to avoid the enemy's observation, both when advancing to a position and when in action.

2. The machine gun possesses the power of delivering, from a very narrow front, a practically uninterrupted volume of closely concentrated rifle fire, which can be directed against any desired object with the least possible delay.

3. The delivery of such a fire cannot, however, be long sustained, because of the heavy expenditure of ammunition involved, and the difficulty of replenishing it.

4. It is necessary, therefore, for its effective use, that its movements and fire action should be so regulated as to enable it to open fire rapidly whenever a favourable target presents itself, for the losses inflicted on an enemy will affect him in proportion to the suddenness and rapidity with which they are experienced.

5. As the rôle of machine guns is to assist the particular body of troops to which they belong, the machine gun commander should be fully acquainted with the orders issued to such troops. He should also carefully watch and conform to their movements, and assist them by every means in his power.

6. The machine guns belonging to a unit will, as a rule, be employed together, the most favourable position being sought for with regard to fire effect and cover.

The massing of guns is calculated to attract hostile fire, and should, therefore, rarely be resorted to. When it is desired to bring an overwhelming fire to bear on any point, it should usually be accomplished by the concentration of fire from dispersed pairs of guns.

7. The selection of a fire position should, as a rule, be preceded by careful reconnaissance on the part of the machine-gun commander. The following points should be looked for :—

- (a) A good field of fire.
- (b) Concealment.
- (c) Cover from the hostile fire.
- (d) Possibilities for advancing to the position unobserved, and facilities for ammunition supply.
- (e) Security against a covered hostile approach.

If a position affording concealment is not available one should be selected which from the nature of its background will be difficult for the enemy to locate.

8. As a general rule, machine guns are best adapted for action at effective ranges ; at these it is usually possible to distinguish the target, to ascertain its range, and to observe the effects of the fire.

When, however, concealment and protection from fire exist, it may sometimes be advisable to bring machine guns into action at decisive range.

If a sufficiently large target be offered and the range be known, the concentration and rapidity of their fire will enable guns to be employed, with considerable effect, at long ranges.

9. Machine guns should seldom engage artillery at long rifle range, for in such circumstances superiority of fire will always rest with the latter if the machine guns are located. Within effective range, however, machine guns, if concealed, should inflict considerable loss on hostile artillery.

10. Engagements with thin lines of skirmishers should, as a rule, be avoided, for the risk of disclosing the position of the gun and the heavy expenditure of ammunition involved, will rarely be justified by results.

11. Since the gun is not well adapted for keeping up protracted fire, it may often be expedient to withdraw it from action, move it elsewhere, or hold it in reserve for a more favourable opportunity.

12. The selection of a target upon which to fire should be governed by (a) its tactical importance ; (b) its dimensions and vulnerability.

13. It is essential that due regard to economy of ammunition should be observed. When, however, it is decided to open fire, the ammunition necessary to secure the results sought must be expended without hesitation.

14. "Deliberate fire" will rarely be resorted to. In cases where a favourable target is offered, prolonged "rapid fire" may be employed, but the most suitable description of fire will usually be "rapid," in series of from 25 to 30 rounds.

15. The range should be taken by a range finder, or ascertained from the neighbouring troops. Ranging by observation of fire should only be employed when the nature of the soil is very favourable and when no other method is practicable.

16. When an ammunition motor is provided for the machine guns, it will be under the orders of the machine gun commander, who will arrange that it is placed where it can most conveniently supply the guns with ammunition ; it should be screened from view, and if possible, sheltered from fire. All belts shall be refilled as soon as possible after they are emptied. For amount of ammunition carried see "War Establishments."

17. Should the machine gun commander consider that an escort be necessary, he will at once bring the fact to the notice of his commanding officer.

Sec. 65.—In the Attack.

In the attack machine guns will be specially valuable in bringing a sudden fire to bear from positions which have been seized during the crisis of the fight, as described in Sec. 62. They may also be usefully employed in covering the advance of a firing line to seize such positions, to protect the firing line against counter-attack, or to secure the flanks against surprise.

But as the role of cyclists on the battlefield is locally defensive (*vide* Sec. 64), cyclist machine guns will rarely be required to co-operate in a general attack on a position.

Sec. 69.—*In the Defence.*

1. It is more important to shield machine guns from artillery fire than to obtain a long range for them. Their position should therefore always be concealed, and cover from fire should be provided.

2. They are best utilized to sweep with the fire spaces which are particularly exposed, but which the enemy is compelled to cross; to flank salients, cover obstacles, deny the passage of roads and defiles, or to guard the flanks of the position.

3. It will, at times, be expedient to keep the guns in rear of the fire position under cover, until the enemy reaches effective ranges. In such cases, emplacements should be previously prepared and covered approaches provided.

Machine guns may also be held as a reserve of fire to check the advance of hostile reinforcements, to meet turning movements, or to prepare and cover the counter-attack.

4. When their retirement is not likely to be compromised, machine guns may be utilized in positions in front of the main line to delay the enemy's advance.

Sec. 70.—*In Pursuit or Retreat.*

In pursuit machine gun commanders should act with great boldness, and it should be their endeavour to come into action against the enemy's flanks at decisive range. In retirements they should, as a rule, avoid close engagements, and should take up successive fire positions, from which to delay the enemy's advance and protect the flanks of the rear guard.

Sec. 71.—*With Advanced and Rear Guards, and with Outposts.*

With an advanced guard machine guns may often be pushed forward to assist in dispersing small bodies of the enemy who might delay the advance; they may be also employed in opposing the enemy's advance and in preventing the occupation of important positions until the arrival of the main body.

With the outposts they may be used to sweep the approaches, and to dominate certain points which an enemy in advancing is likely to pass or to occupy.

PART III.—CEREMONIAL.

1. The instructions contained in this part are to be confined strictly to ceremonial occasions, and the necessary drill is only to be practised sufficiently to ensure proper performance of the movements when required.

For ceremonial parades companies will be equalized and the section commanders of outer sections will be on the flanks.

2. *Review of a Battalion.*

The battalion may be drawn up in column or quarter column. The positions of officers and supernumeraries are as shown in Plate III.

When the colonel of the regiment is present he will be ten paces in front of the officer commanding the battalion. Should the colonel-in-chief also be present he will be ten paces in front of the former.

3. *Receiving the Reviewing Officer.*

General—
Salute. { When the reviewing officer reaches a point about sixty paces from the centre of the battalion he will be received with a salute; the officers saluting with the right hand as described in "Infantry Training," Sec. 10.

When a cyclist battalion is on parade with other troops and the command *General Salute, Present—Arms* is given, officers will salute on the word *Arms*.

4. *Inspection.*

The reviewing officer, accompanied by the commanding officer of the battalion, who will be on the side further from the troops, will then inspect the companies. Each company commander will receive him with a salute and will follow him during the inspection of his company. After the inspection of the company the commander will give the command "*Stand at Ease.*"

5. *A Battalion Marching Past in Column.*

(1) Points will be placed on the principles described in "*Infantry Training,*" Sec. 187; the points marking the saluting base will be covered in a line at a convenient distance from the saluting point.

(2) If the battalion is in column, quarter column will be formed as follows:—

<i>Quarter</i>	} The whole except the leading company will break into quick time and will be halted by their commanders successively on reaching their positions in quarter column.
<i>Column.</i>	
<i>Remainder</i>	
<i>Quick—</i>	
<i>March.</i>	

(3) The battalion will be moved to the right on the command *Files—Right, Quick—March*, on reaching the first point it will wheel a quarter circle to the left as follows:—

Change
Direction
Left
Left—
Wheel.

[On the command *Left Wheel* the battalion* except the leading file of each company will make a partial turn to the outer flank; leading files of companies will glance towards the inner flank on which they will wheel, the major superintending on the inner flank and the adjutant regulating the pace on the outer flank. Each man will move round on the circumference of a circle of which the inner squad

commander of the leading company is the centre. When the battalion has circled round to the required angle the command *Forward* will be given. This may be preceded by *Mark Time* should all the companies not be in their correct positions.

When the leading files of companies reach the saluting base the command *At the Halt Facing Left Form Company* will be given, when Nos. 1 of companies will halt and turn to their left, Nos. 2 taking their places at cycle interval on the left of Nos. 1 and so on. The right section commanders will be covered by the major and on the commanding officer's order *Battalion Right—Dress*, they will dress their companies and give the command *Eyes—Front*.

ADVANCE
IN COLUMN
BY THE
RIGHT.

The commanding officer will give the caution to advance in column.

No. 1
*By the
Right
Quick—
March.*

The commander of No. 1 will then march it off, the remaining companies following in succession at company distance.

Eyes Right.

On reaching point A he will give the command *Eyes—Right*, upon which all, except the right section commander will turn their heads and eyes well to the right, looking the inspecting officer in the face. The commander will salute with ~~his~~ right hand on the third pace before reaching the reviewing officer and will lower the hand on the third pace after passing him.

Officers other than company officers will salute in a similar manner.

Officers will never salute more than once in marching past.

6. *In Quarter Column.*

If the battalion be required to march past in quarter column it will be moved to the saluting base as directed in 5 (3) and on the command *Right Dress* the directing section commanders will take post in rear of their sections, and the company commanders will take post on the right of the companies which will dress by the right.

The battalion will then be ordered to march past in quarter column.

The commanding officer will give the command *Eyes—Right* when at ten paces from the saluting point, and *Eyes—Front* when the rear company has passed the inspecting officer. Company commanders will not look to the right.

7. The position of officers, warrant officers, and staff sergeants, except the acting sergeant-major, signallers, machine guns, and regimental transport will be as laid down in "Infantry Training," Sec. 191.

The acting sergeant-major will be three cycle lengths in rear of the rear rank of the rear company on the directing flank.

INDEX.

A.

	PAGE
Action, delaying, duties of cyclist in	32, 44, 64
„ of a reconnoitring patrol	52
„ development of the	66
Advanced guard, duties of the cyclist	41
organisation and strength of	41
distribution and action of	42
reports from the	43
employment of machine guns with the	74
Annual camp, the	12
Arms, detaching and returning	17
„ co-operation with the other, duties of cyclists in	32
„ „ „ „ general principles for cyclists	64
Attack, employment of machine guns in the	72
Attention, position at	13

B.

Badges, award of scouts	50
Battalion, training of the	12
drill, general principles for	25
inspecting and telling off the	25
forming quarter column from column of route	26
distribution of, in defence of a coast line	60
review of the	75
inspection of (ceremonial)	76
Battle, the crisis of the	67
Buglers, position of, on the march	34

C.

	PAGE
Camp, the annual	12
Captain, position of the	20
Casualties on the march	38
Ceremonial drill	75
Coast line, protection of the, general principles	59
" " defence of, special qualifications of cyclists for	28
" " patrolling the	29
" " "Combined Training," application of	47
Commands when on the march	37
" transmission, of, when marching by night	39
Commanders, half-company, position of.. .. .	21
" section, position of	21
" " responsibilities regarding cycles	23
Communications when on the march	36
Company, course of training of the	11
organisation of the	20
formation of the	21
inspection of the	21
proving of the	21
telling off the	23
Competitions in scouting	52
Concealment	51
Concentration, system for.. .. .	62
" when practised	63
Co-operation with the other arms	82, 64
Covering positions	64
Crisis, the	67
Cycle, the, description of	6
" " type of	5
" " inspection of	21
Cycles, to ground	16
stacking and unstacking	16
Cyclist, the, equipment of.. .. .	5
" the trained, individual training of	9
" " course of instruction for	9

INDEX,

81

	PAGE
Cyclist, the recruit, individual training of	8
" " course of construction for	8
" position of the	14
" the rôle of the, in war	27, 32
Cyclist, special duties of	29
" in the defence	68

D.

Defence, home, the problem of	27
" coast, special qualifications of cyclists for	28
" cyclists in the	68
" employment of machine guns in the	72
Definitions	4
Dis-mounting	16
Dismissing	19
Distances, when on the march	35
Dressing of a squad	14
Drill, squad	8, 14
cyclist, general rules for	13
company, general rules for	20
movements	23
battalion, general rules for	25
ceremonial	75
Duties, special, of the cyclist	29
" should an enemy effect a landing	31

E.

Ear, use of the	51
Ease, standing at	14
Easy, standing	14
Enemy landing, preventing the	30
" reconnaissance of the, general principles of	52
" contact with the	55
Engineering, military, instruction in	8
Equipment, method of carrying	6
Eye, use of the	51

F.

	PAGE
Field training	27
File, to form when moving in single file	17
" single, to form when moving in file	17
" moving to a flank in	18
" or single file, turning about when in	19
" " " changing direction when in	19
" " " when marching in, to form up into squad	19
Flags, officers, etc., to carry	5
Flank guards, duties of	44
Formation of the company	21
" when on the march	34

G.

Guard, the advanced, duties of	41
" the main, duties of	43
" flank, duties of	44
" the van, duties of	42
Guides, importance of good	34
Guns, machine, general principles of the employment of	70
" " selection of fine position	71
" " rules of fire	72
" " in the attack	72
" " defence	73
" " pursuit or retreat	73
" " employment of with advanced and rear guards and outposts	74

H.

Halt, the, when mounted	16
Halts on the march	35
Harbours, how protected	27
Headquarters of area, position of	62
Hills, riding up	37
Home defence, problem of	27

I.

	PAGE
"Infantry Training," portions to be studied	8
Information, transmission of	30, 57
" gaining	48
" negative	55
Inspection of the battalion (ceremonial)	76
" " "	25
" " company	21
Interval between men in the ranks	21
Introductory phase, the	66

L.

Lamps, lighting of	39
Look-out stations	61

M.

Machine guns, general principles of employment of	70
Map reading, instruction in	8, 51
" guiding by means of a	34
Marching, rate of	34
" manner of	34
" rate of, effect of roads and weather on	37
" night, rate of	39
" past in column	76
" " in quarter column	78
March, casualties on the	38
" orders of	38
" rules for	38
Marches, length of	86
Mounting, method of	16
Movements by rail	33, 39
" " road	33, 37
"Musketry Regulations," application of	8
Musketry, courses of	8

N.

	PAGE
Night, marching by	39
" " commands when	39
" " rate of	39
" patrolling by	63
Non-commissioned officers, training of	10
" " supernumerary, position of at drill	21
" " position of at drill (ceremonial)	78

O.

Officer, the recruit, course of training for	10
" reviewing, receiving the	75
Officers, position of (ceremonial).. .. .	78
Orders, passing of, when on the march	36
Order of march	38
Orderlies, rules for, when on the march	37
Organization of the company	20
" " cyclists	29
" " reliefs	63
Outposts, day	45
" night	47
" employment of machine guns with	74

P.

Patrols, advanced, reports of	43
" standing, rules for	46
" reconnoitring, rules for	47
" " action of	53
" visiting, rules for.. .. .	47
" in contact with enemy, duties of	55
" to work in pairs	63
Patrolling at night	63

	PAGE
Phase, the introductory, of the battle	66
" " preparatory	66
Physical training	8
Picquets, rules for	46
Positions, covering	64
Protection, general rules for	40
" on the line of march	41
" when at rest	45
" of a coast line, general principles of	59
Pursuit, the	68
" the employment of machine guns in	73

B.

Rail, movements by, general principles	33
" "	39
Recruit, the, course of instruction	9
" " training of	9
Reconnaissance, general principles of	47
" instruction in	49
" of enemy, general conduct of	52
" by larger bodies	56
Reconnoitring detachments, strategical, rules for	56
Reliefs, organization of	68
Repairers, position of	20
Reports of an advanced guard	43
Reporting, instruction in	52
Reserves, strength and position of	62
Revolvers, by whom carried	6
Retreat, the	68
" employment of machine guns in the	73
Rifles, position of	8
Road, movements by, general principles of	33
" rule of the	38
Roads, effect of, on rate of marching	37
Rôles, the, of the cyclist in war	27, 32

S.

	PAGE
Saluting	14
Salute, the general.. ..	75
Scouts, value of in reconnoitring	48
" training of	49
" number per battalion	50
" badges for	50
Scouting, competitions in	52
Section commanders, training of	10
Sergt.-major, position of, ceremonial	78
Shipping, identification of	51
Signals to be employed	13
Signals	19
" when on the march	37
" naval, acquaintance with	30
Signallers, position of	20
Signalling, semaphore, instruction in	9
Skirmishing.. .. .	8
Space occupied by battalion moving in column of route	33
Squad, formation of a	14
Stations, look-out	61
Straggling, cause of	38
Supports, position of	61
Swords, not to be carried by officers	6

T.

Tactical exercises, how to be conducted.. ..	11
Telescope, the, use of	52
Tracking	51
Traffic, regulations at night, observation of	39
Training, general principles of and instructions regarding	7
" physical	8
" individual, of the recruit	8
" " " " officer	10
" of non-commissioned officers	10
" " section commanders.. .. .	10

INDEX.

87

	PAGE
Training of the trained cyclist	9
" " " company, course of	11
" " " battalion.. .. .	12
Troops, enemy's advanced, checking the	31
" marching, estimating the number of	49
Turnings	15
Tyres, care of	38

V.

Vanguard, the, rules for	42
----------------------------------	----

W.

War games as a means of instruction	10
War, the <i>role</i> of the cyclist in	27, 32
" duties of cyclist in	29
Weather, effect of, on rate of marching.. .. .	37

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